BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE POLICY DIRECTIVE 23-3

7 SEPTEMBER 1993

Supply

ENERGY MANAGEMENT

OPR: HQ USAF/LGSS (Maj K. Pendergast) Certified by: HQ USAF/LG (Col Jonathan E. Zall)
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1. The Air Force consumes significant amounts of energy in supporting the national defense policy. Limited energy reserves, restrictive budgets, and potential pollution of the environment require the Air Force to establish policies for responsibly allocating, controlling, and using energy.

2. To eliminate waste and conserve energy resources, the Air Force will use efficient and cost-effective technology.

3. The Air Force should evaluate the vulnerability of its missions and facilities to energy disruptions and take action to eliminate them.

4. The Air Force must make energy available to execute the flying-hour program in the most efficient manner possible. Energy efficiency will be incorporated into the decisionmaking process during the design and acquisition of aircraft.

5. To promote vehicle energy efficiency, the Air Force must manage, effectively maintain, and acquire an energy-efficient vehicle fleet.

6. The Air Force will increase utility energy efficiency through capital investment and improved operations.

7. Significant achievements of individuals and organizations should be recognized in conserving aircraft, utility, and vehicle energy, furthering national energy policy, and obtaining monetary savings.

8. The Air Force Energy Program Procedural Memorandum is the primary means for implementing specific Air Force energy procedural guidance as directed by the Department of Defense (DoD) and the Department of Energy or as developed internally by the Air Force.

9. The following responsibilities and authorities are established:

9.1. Headquarters US Air Force (HQ USAF) is responsible for policy oversight and advocacy of the Air Force's Energy Management Program and for interface with the Office of the Secretary of Defense staff concerning development of DoD policy and legislative initiatives. The Assistant Secretary for Manpower, Reserve Affairs, Installations and Environment (SAF/MI) discharges this responsibility for the Secretary of the Air Force.

9.2. Commanders are responsible for establishing Energy Management Programs, identifying requirements, and executing their programs to comply with this policy.

9.3. Each level of command (HQ USAF, major command or equivalent, or installation) will establish an Energy Management Steering Group to coordinate all energy matters within the applicable level of command.

10. Terms Explained:

10.1. **Actual Fuel Consumption** is the total aircraft fuel used for the specified timeframe.

10.2. **Air Force Energy Program Procedural Memorandums** are brief publications published as required to update energy conservation goals and procedures.

10.3. **Capital Investment** includes, but is not limited to: constructing new, energy-efficient facilities; replacing inefficient facilities; and retrofitting existing facilities.

10.4. **Defense Energy Information System** is an automated management information system with which the Department of Defense monitors its supply and consumption of energy.

10.5. **Energy** is usable power such as coal, petroleum products, steam, electricity, natural gas, and propane, and including military operational fuels and propellants, whether purchased, generated, or produced by the Department of Defense, but excluding nuclear energy used in ship propulsion.

10.6. **Energy Management Steering Group (EMSG)** is the focal point for energy-related matters. The EMSG usually is chaired by the commander or designee and consists of senior representatives from civil engineering, transportation, aircraft operations, budget, supply, public affairs, contracting, acquisition, and fuels management.

10.7. **Improved Operations** are achieved efficiencies which include: maintaining energy systems in peak operating condition; seeking more cost-effective sources of energy; and exploring applications for alternative sources of energy.

10.8. **Process Energy** is energy directly consumed in manufacturing, maintenance, overhauling, rehabilitation or refurbishment, destruction, warehousing, and similar processes.

10.9. **Programmed Fuel Consumption** is adjusted programmed fuel consumption based on actual flying hours.

11. This directive implements national policies and Federal energy objectives in Federal Energy Management Improvement Act of 1988; Executive Order 12759, *Federal Energy Management,* April 17, 1991; and Defense Management Review Decision 907, *Energy Resource Management,* November 17, 1990. This directive also implements DoD Directive 5126.46, *Defense Energy Information System (DEIS),* December 2, 1987; DoD 5126.46-M, *Defense Energy Information System,* February 1990, with Change 1; and DoD Instruction 4170.10, *Energy Management Policy,* August 8, 1991.

12. This policy interfaces with AFI 36-2822, *Air Force Energy Awards* (formerly AFR 900-56).

13. See **Attachment 1** for measures used to comply with this policy.

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Attachment 1

MEASURING COMPLIANCE WITH POLICY

A1.1. Compliance with energy management policy is assessed by taking measurements in two areas: Mobility Energy and Utility Energy. Measurements will be done by each installation and reported through RCS: DD-P&L(M)1313, *Defense Energy Information System (DEIS)*. Information can be extracted from the DEIS report and displayed in measurement charts depicting trends in progress toward reduction goals. Specific reduction goals for each measurement area will be issued through an Air Force Energy Program Procedural Memorandum.

A1.1.1. **Mobility Energy.** The policy to reduce mobility energy will be assessed by measuring actual petroleum consumption (**Figure A1.1.**). Consumption will be measured in barrels and include aircraft and vehicle operations. With the consolidation of bulk petroleum under the Defense Logistics Agency (DLA), these data are collected by DLA and sent to the Office of Assistant Secretary of Defense (Production and Logistics) (OASD[P&L]) through the DEIS I reporting system.

A1.1.1.1. **Aircraft Operations.** The policy to reduce mobility energy in aircraft operations will be assessed by measuring the amount of fuel consumed. Measurement will be charted on the required frequency and compared to the fiscal year (FY) 1985 baseline.

A1.1.1.2. **Aircraft Fuel Consumption Efficiency.** The policy to use energy in aircraft operations in the most efficient manner will be assessed by comparing programmed fuel consumption to actual fuel consumption (**Figure A1.2.**). Consumption will be converted to percent reduced using the following equation:

100 Percent Minus (Actual/Programmed X 100) = Percent Reduced

Measurement will be charted on the required frequency. The source for actual fuel consumption is RCS: HAF-LGS(M)7405, *Fuels Sale Analysis Report*. The source for programmed fuel consumption is Exhibit OP-26, *POL Consumption and Cost Report*.

A1.1.1.3. **Vehicle Operations**. The policy to reduce mobility energy in vehicle operations will be assessed by measuring the amount of fuel consumed. Measurement will be charted on the required frequency and compared to the FY 1991 baseline.

A1.1.2. **Utility Energy**. The policy to reduce utility energy will be assessed by measuring utility consumption, to include electricity, coal, natural gas, petroleum, and others (**Figure A1.3.**). Consumption will be measured in MBtu per square foot and will include installation and industrial operations. Consumption will be converted to percent reduced using the following equation:

100 Percent Minus (19xx Mbtu or 1985 Mbtu) = Percent Reduced

This data will be collected under the DEIS II program by Headquarters Air Force Civil Engineering Support Agency and sent to OASD(P&L).

A1.1.2.1. **Installation Operations**. The policy to reduce utility energy in installation operations will be assessed by measuring the amount of energy use in MBtu per square foot. Measurement will be charted on the required frequency and compared to an FY 1985 baseline.

A1.1.2.2. **Industrial Operations**. The policy to reduce utility energy in industrial operations will be assessed by measuring the amount of process energy use, normally in MBtu per square foot

unless otherwise approved by OASD(P&L). Measurement will be charted on the required frequency and compared to an FY 1985 baseline.

Figure A1.1. Sample Metric of Mobility Energy.

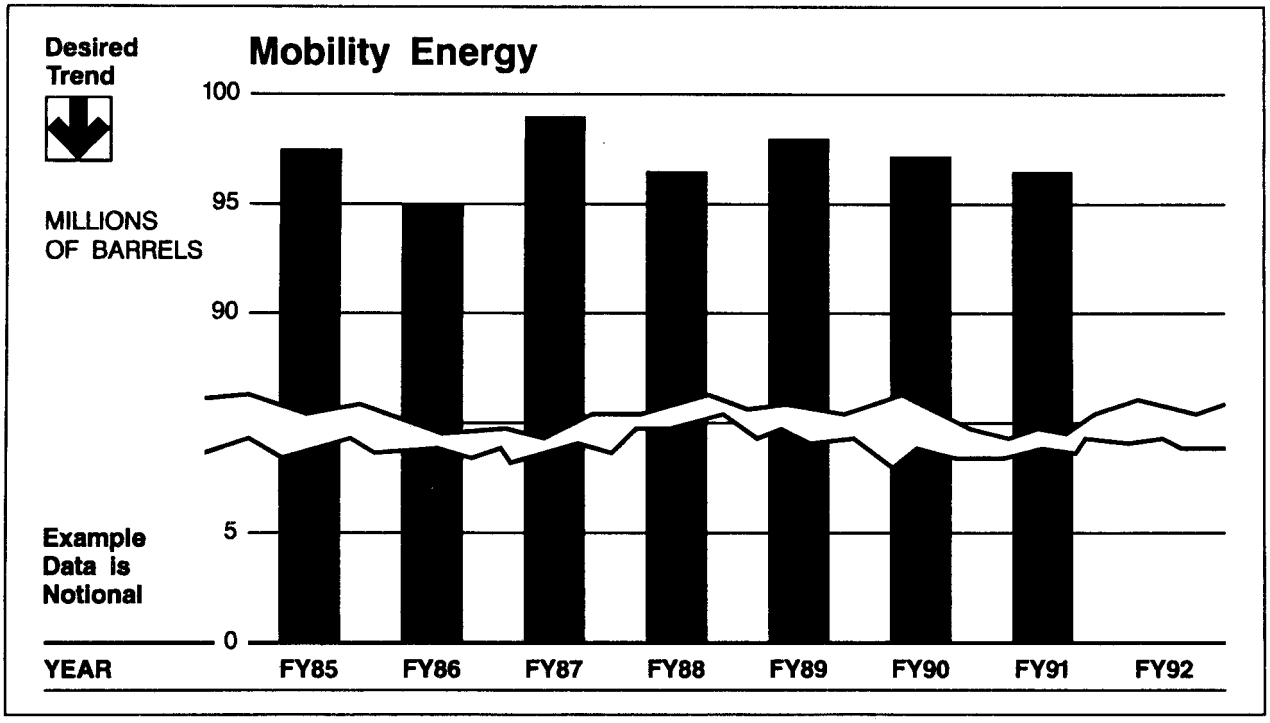
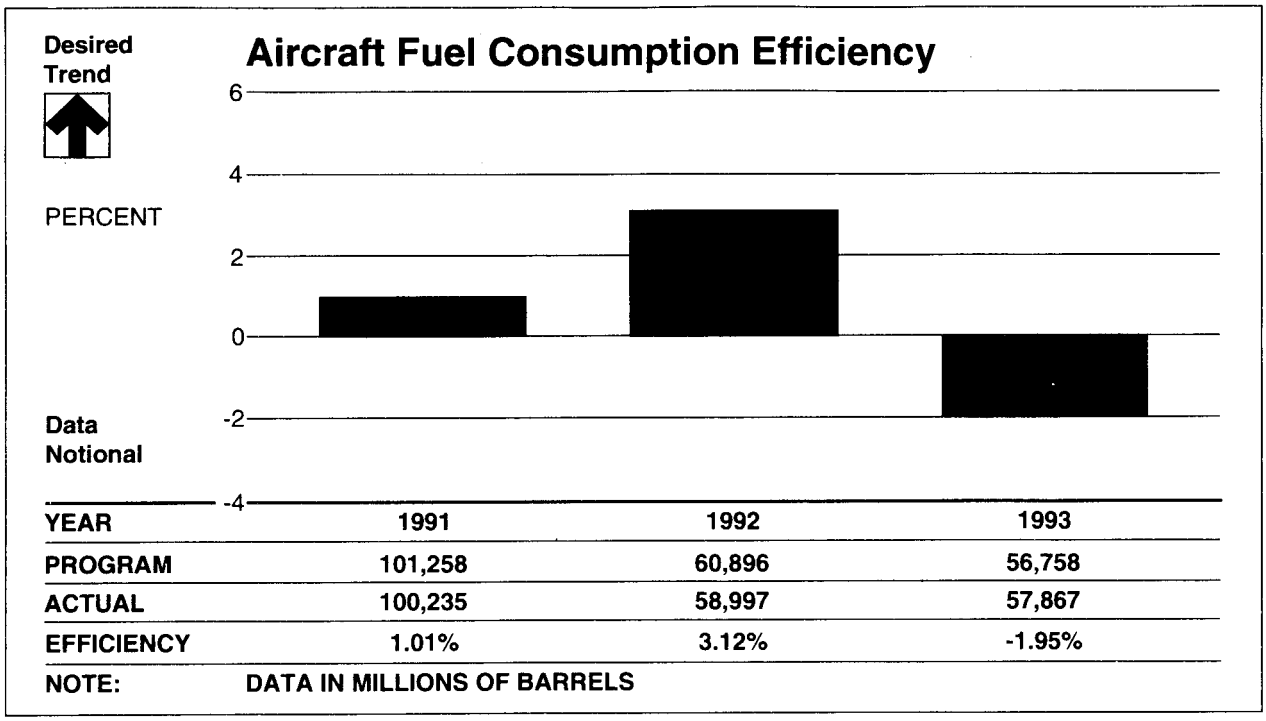


Figure A1.2. Sample Metric of Aircraft Fuel Consumption Efficiency.



YEAR	1991	1992	1993
PROGRAM	101,258	60,896	56,758
ACTUAL	100,235	58,997	57,867
EFFICIENCY	1.01%	3.12%	-1.95%

NOTE: DATA IN MILLIONS OF BARRELS

Figure A1.3. Sample Metric of Utility Energy.